AUG 3 1 2004 E

9-1-04

1F12/2/21

**PATENT** 

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

(Attorney Docket No. 05222.00167)

In re U al.	J.S. Patent Application of Lannert, et.	)	
Applic	ation No. 09/868,708	)	Examiner: Hirl
Filed:	October 22, 2001	)	Group Art Unit: 2121
For:	A GOAL BASED SYSTEM UTILIZING A TIME BASED MODEL	)	

### SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Commissioner of Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR §§1.97 and 1.98, the Applicant wishes to make the following references of record in the above-identified application. This Supplemental Information Disclosure Statement is in compliance with the continuing duty of candor as set forth in 37 CFR §1.56. Copies of the references cited below are enclosed. The references are also listed on the enclosed and completed Form PTO/SB/08A.

The Commissioner is authorized to charge the fees associated with this paper to Deposit Account No. 19-0733.

Under 37 CFR §1.97(g), the filing of this Supplemental Information Disclosure Statement shall not be construed as a representation that a search has been made.

09/01/2004 MBLANCO 00000018 190733 09868708 01 FC:1806 180.00 DA Under 37 CFR §1.97(h), the filing of this Supplemental Information Disclosure Statement shall not be construed to be an admission that the cited references are, or are considered to be, material to patentability as defined in 37 CFR §1.56(b).

771	1.			C 11 '	11	
The present patent	annlication	is related	i to the	tollowing co	o-nending naten	t annlications.
The present patent	apprication	13 I Clatco	i to the	TOHO WILLS OF	o-pending paten	i applications.

09/502,348	09/218,977	09/218,726	09/868,664	09/868,713
09/219,055	09/218,749	09/218,995	09/868,669	09/868,667
09/219,080	09/219,479	09/218,945	09/868,693	10/008,265
09/305,719	09/219,524	09/221,608	09/868,694	10/018,062
09/219,480	09/219,477	09/629,367	09/868,698	09/934,924
09/218,968	09/219,481	09/502,349	09/868,678	09/935,219
09/221,217	09/219,088	09/219,478	09/868,682	09/935,348
09/218,741	09/219,201	09/887,188	09/868,686	
09/502,142	09/219,079	10/007,824	09/868,689	
09/219,086	09/218,906	09/887,824	09/868,752	
09/221,138	09/218,976	09/887,947	09/868,743	

#### Foreign References

- 1. EP 0 689 132 A2, published 12/27/95
- 2. EP 0 710 942 A2, published 05/08/96
- 3. EP 0 798 655 A2, published 10/01/97
- 4. WO 00/04478, published 01/27/00
- 5. WO 98/03953, published 01/29/98
- 6. WO 98/25251, published 06/11/98
- 7. WO 98/32109, published 07/23/98

#### Other Prior Art -- Non Patent Literature Documents

- 8. W. Doube, "A Browser-Based System to Support & Deliver DE," 1998 FIE Conference, Conference Proceedings, Vol. 1, pp. 479-484, Nov. 4-7, 1998
- 9. W. Regian and G.Pitts, "A Fuzzy Logic-Based Intelligent Tutoring System (ITS)," Information Processing 92, Vol. II, pp. 66-72, Dec. 1992.
- 10. J. Reye, "A Goal-Centered Architecture for Intelligent Tutoring Systems," Proc. of 7th World Conf. on Artificial Intelligence in Education, pp. 307-314, Aug. 1995

- 11. R. Schank and D. Edelson, "A Role for AI in Education: Using Technology to Reshape Education", Northwestern University, The Institute for the Learning Sciences, Journal of Artificial Intelligence in Education, Winter 1990, , pp. 1-24, January 1990
- 12. A. Nowakowski, "A Special Section -- Goal Based Scenarios: A New Approach to Professional Education: Reengineering Education at Andersen Consulting," Educational Technology, pp. 3-8, Nov.-Dec. 1994
- 13. R. Chellappa, A. Barua and A. Whinston, "An Electronic Infrastructure for a Virtual University," Communications of the ACM, Vol. 40, No. 9, pp. 56-58, Sep. 1997.
- 14. K. Itoh M.Itami, K. Ichihara, J. Matsushita, T. Nomizo, T. Shimomura and T. Takahashi, "An Object-Oriented Architecture for Evolutional Development of Interactive Learning Environment with Coached Problem-Solving," Proc. Of 1997 World Conf. On Artificial Intelligence in Education, pp. 592-94, Dec. 1997
- 15. K. Nakabayashi, M. Maruama, Y. Koike, Y. Kato, H. Touhei and Y. Fukuhara, "Architecture of an Intelligent Tutoring System on the WWW," Artificial Intelligence in Education, pp. 39-46, Dec. 1997
- 16. D. McArthur, "Artificial Intelligence and Mathematics Education" at http://www.rand.org/hot/mcarthur/Papers/aied.html, pp. 1-8, Jan. 2001
- 17. T. Murray, "Authoring Intelligent Tutoring Systems: An Analysis of the State of the Art" at http://www.cs.umass/edu/~tmurray/papers/ATSummary/AuthTools.html, pp. 1-35, July 2001
- 18. "Automate Your Business Plan Software" at www.business-plan.com/automate.html, pp. 1-4, July 2001
- 19. A. Gonalez and L. Ingraham, "Automated Exercise Progression in Simulation-Based Training," IEEE Trans. On Systems, Man, and Cybernetics, Vol. 24, No. 6, pp. 863-74, June 1994
- 20. A. Muntjewerff, "Automated Training of Legal Reasoning" at http://www.bileta.ac.uk/94papers/muntjew.html, pp. 1-7, July 2001, 9<sup>th</sup> BILETA Conference April, 1994
- 21. "Brainmaker" at htt://people.becon.org/~echoscan/28-04.htm, July 2001
- 22. Brainmaker Neural Network Application Examples at http://www.calsci.com/Applications.html, January 2001
- 23. C. Robinson, E. Arias and H. Eden, "Bridging the Virtual and the Physical: The InterSim as a Collaborative Support Interface," Artificial Intelligence in Education, pp. 556-58, Dec. 1997
- 24. C. Shreiner, "CAPTOR a Model for Delivering Web-Based Intelligent Tutoring System Technology", IEEE Proc. DASC vol. 2, pp 5.C.4.1-5

- 25. S. Prabhu, "Computer Aided Instruction for Statistics: A Knowledge-Based Systems Approach," Int'l J. of Computers in Adult Education and Training, Vol. 5(1), pp. 3-14., November 1995
- 26. J. Montgomery, R. Campbell and C. Moffett, "Conducting and Supporting a Goal-Based Scenario Learning Environment," Educational Technology, pp. 15-20, 994
- 27. A. Zeller and D. Lutkehaus, "DDD--A Free Graphical Front-End for UNIX Debuggers," ACM Sigplan Notices, Vol. 31, No. 1, pp. 22-27, Jan. 1996,
- 28. Vanguard Software Corporation "Decision Pro3.0" at www.vanguardsw.com/, Jan. 2001
- 29. B. Cheok and A. Nee, "Developing a Design System into an Intelligent Tutoring System," Int'l J. Engr. Eud., Vol. 13(5), pp-341-46, Dec. 1997
- 30. T. Nogami, Y. Yokoi, I. Yanagisawa and S. Mitui, "Development of a Simulation-Based Intelligent Tutoring System for Assisting PID Control Learning," IEICE Transactions on Information and Systems, E77-D, No. 1, Tokyo Japan, pp. 108-117, Jan. 1994
- 31. J. Gonzalez, J. Lopez, F. Bustio, P., Corcuera and E. Mora, "Development of an Integrated Simulator and Real Time Plant Information System," Advances in Operational Safety of Nuclear Power Plants, Proceedings of an International Symposium, pp. 543-549, September 1996.
- 32. P. Brusilovsky, S. Ritter and E. Schwarz, "Distributed Intelligent Tutoring on the Web," Artificial Intelligence in Education, pp. 482-89, Dec. 1997
- 33. R. Schank and M. Korcuska, "Eight Goal-Based Scenario Tools", Technical Report # 67, Northwestern University, The Institute for the Learning Sciences, pp. 1-37, January 1996
- 34. J. Siemer and M. Angelides, "Embedding an Intelligent Tutoring System in a Business Gaming-Simulation Environment," Proc. Of the 1994 Winter Simulation Conference, pp. 1399-1406, Dec. 1994
- 35. Engines for Education" http://www.ils.nwu.edu/~e\_for\_e/nodes/I-M-INTRO-ZOOMER-pg.html; July 2001.
- 36. S. Taylor and J. Siemer, "Enhancing Simulation Education with Intelligent Tutoring Systems," Proc. Of the 1996 Winter Simulation Conf., pp. 675-80, Dec. 1996
- 37. J. Siemer and M. Angelides, "Evaluating Intelligent Tutoring with Gaming Simulations," Proc. Of the 1995 Winter Simulation Conf., pp. 1376-83, Dec. 1995
- 38. A. Mitrovic and B. Martin, "Evaluating the effectiveness of feedback in SQL-tutor", IEEE, proc. Int. workshop IWALT, pp 143-144, 2000
- 39. D. Foster, "FRA: Teaching Financial Accounting with a Goal-Based Scenario," Intelligent Systems in Accounting, Finance and Management, Vol. 4, pp. 173-189, September 1995

- 40. N. Livergood, "From Computer-Assisted Instruction to Intelligent Tutoring Systems," J. Artificial Intelligence in Education, V. 2(3), pp. 39-50, Dec. 1991
- 41. R. Shank, "Goal-Based Scenarios and Business Training: A Conversation with Roger C. Schank," Educational Technology, pp. 27-29, Nov.-Dec. 1994
- 42. A. Collins, "Goal-Based Scenarios and the Problem of Situated Learning: A Commentary on Andersen Consulting's Design of Goal-Based Scenarios," Educational Technology, pp. 30-32, Nov.-Dec. 1994
- 43. R. Shank, "Goal-Based Scenarios", Technical Report # 36, Northwestern University, The Institute for the Learning Sciences, pp. 1-30, December 1992,
- 44. J. Rickel, "Intelligent Computer-Aided Instruction: A Survey Organized Around System Components," IEEE Inc., New York, Vol. 49, No. 1, pp. 40-57 pp. 1-32, Jan. 1989
- 45. M. Yazdani, "Intelligent Tutoring Systems: An Overview" Experts Systems, Vol. 3, No. 3, pp. 154-162, July 1986
- 46. "Interactive Multimedia Instructs the Individual," Occupational Health & Safety Vol. 63, No. 10, pp. 144-145, Oct. 1994
- 47. J. Carroll and J. McKendree, "Interface Design Issue for Advice Giving Expert Systems", Comm. Of the ACM, vol 30, No. 1, pp14-31, January 1987
- 48. "KBLPS Overview" at www.cgi.com/CGIWEB/KBLPS/overindex4.html, August 1999
- 49. "Kiplinger TaxCut Press Releases" at http://www.taxcut.com/taxcut/98press\_releases/pr98\_nowshipping.html, July 2001
- 50. G. Cole, "Learning with Computers,", Accountancy Vol. 113, No. 1209, pp. 60-64, May 1994
- 51. J. Keys, R. Fulmer and S. Stumpf "Microworlds and Simuworlds: Practice Fields for the Learning Organization," Organizational Dynamics Vol. 24, No. 4, pp. 36-49, Spring 1996
- 52. "MUSE Patents" OCCAM Research Corporation, at www.muser.com/html/patents.html, January 2001
- 53. "News for ESAP" at www.hops.wharton.upenn.edu/~esap/news.html, August 1999
- 54. M. Cohn, "No More Boring CPE," Accounting Technology, pp. 27-35, July 1997
- 55. K. Lai, T. Malon, K. Yu, "Object Lens: A 'Spreadsheet' for Cooperative Work", ACM Transactions on Information Systems, Vol. 6, No. 4, pp. 332-353, Oct. 1988
- 56. J. Brown, R. Burton and J. DeKleer, "Pedagogical, Natural Language and Knowledge Engineering Techniques in SOPHIE I, II, and III," Intelligent Tutoring Systems, D. Sleeman & J.S. Brown eds., pp. 227-82, Dec. 1982

- 57. J. Caird, "Persistent Issues in the Application of Virtual Environment Systems to Training," Proceedings. Third Annual Symposium on Human Interaction with Complex Systems, IEEE, pp. 124-32, August 1996
- 58. D. Bill, "Popular Theory Supporting the Use of Computer Simulation for Experiential Learning," http://www.centurionsys.com/rtcl57.html, pp. 1-5, July 2001
- 59. C. Cleary and R. Bareiss, "Practical Methods for Automatically Generating Typed Links", The Institute for Learning Sciences, Northwestern University, ACM Hypertext, pp 31-41, 1996
- 60. "Projects: FinPlan System", Russian Research Institute of Artificial Intelligence, at <a href="http://www.rriai.org.ru/FinPlan">http://www.rriai.org.ru/FinPlan</a>, July 2001
- 61. R. Azevedo, S. Lajoie, M. Desaulniers, D. Fleiszer and P. Bret, "RadTutor: The Theoretical and Empirical Basis for the Design of a Mammography Interpretation Tutor," Proc. of 1997 World Conf. On Artificial Intelligence in Education, pp. 386-393 Dec. 1997
- 62. T. Cooper and N. Wogrin, "Rule-Based Programming with OPS5" Morgan Kaufmann Publishers, at www.mkp.com/books\_catalog/O-934613-51-6.asp, August 1999
- 63. R. Min, "Simulation Technology and Parallelism in Learning Environments" at http://www.to.utwente.nl/prj/min/Book/chapter1.htm, pp. 1-26, July 2001
- 64. J. Shi, T. Smith, J. Granieri and N. Badler, "Smart Avatars in JackMOO," Proceedings of the 1999 IEEE Conference on Virtual Reality, pp. 156-163, 1999
- 65. V. Shute, "SMART Evaluation: Cognitive Diagnosis, Mastery Learning & Remediation," Proc. of 7th World Conf. On Artificial Intelligence in Education, pp. 123-130, Aug. 1995
- 66. C. Hafner and V. Wise, "Smartlaw: Adapting Classic Expert System Techniques for the Legal Research Domain", ACM pp 133-141, 1993
- 67. "Socialized Collaborative Learning in Multimedia Virtual Worlds" National University of Singapore, School Computing, at http://www.comp.nus.edu.sg/labs/learning/lels/vrml.html, pp. 1-4, July 2001
- 68. C. Whittington and L. Campbell, "*Task-Oriented Learning on the Web*"; Innovations in Education and Training International, Vol. 36, No. 1, pp. 26-33, Feb. 1999
- 69. D. Foster, "Teaching Real-World Analysis Skills for Goal-Based Scenario," The Institute for the Learning Sciences, Northwestern University, pp. 68-74, July 2001
- 70. M. Papagni, V. Cirillo and A. Micarelli, "Teaching Through Case-Based Reasoning: An ITS Engine Applied to Business Communication," Proc. of 1997 World Conf. On Artificial Intelligence in Education, pp. 111-118, Dec. 1997
- 71. T. Herron, "Teaching with the internet" 1998, The Internet and Higher Education, pp 217-222, 1998

- 72. D. Suthers, "Technical Report: Computer Aided Education and Training Initiative" at http://advlearn.Irdc.pitt.edu/advlearn/papers/FINALREP.html, pp. 1-51, January 1998
- 73. Workflow Template Developing a WFT Workflow System, "Simulating the Running of the WFT Workflow System", Template Software Business Simulator, Chapter 8, pp. 1-23, 1998
- 74. R. Schank, A. Fano, M. Jona and B. Bell, "The Design of Goal-Based Scenarios", Technical Report # 39, Northwestern University, The Institute for the Learning Sciences, pp. 1-58, March 1993
- 75. J. Anderson and B. Reiser, "The Lisp Tutor," Byte, pp. 159-75, April 1985
- 76. D. McArthur, M. Lewis and M. Bishay, "The Roles of Artificial Intelligence in Education: Current Progress and Future Prospects" at http://www.rand.org/education/mcarthur/Papers/role.html, pp. 1-42, July 2001
- 77. W. van Joolingen, S. King and T. de Jong, "The SimQuest Authoring System for Simulation-Based Discovery Learning," Proc. of 1997 World Conf. On Artificial Intelligence in Education, pp. 79-86, Dec. 1997
- 78. A. Kumar, R. Pakala, R. Ragade and J. Wong, "The Virtual Learning Environment System," 28th Annual Frontiers in Education Conference, Conference Proceedings, Vol. 2, Nov. 4-7, 1998
- 79. M. McGee, "Train with Less Pain," at www.Informationweek.com, pp. 150 and 154 October 1997
- 80. "TurboTax Deluxe Product Information" at http://www.intuit.com/turbotax/prodinfo/ttdlx.html, January 2001
- 81. J. Manzoni and A. Angehrn, "Understanding Organizational Dynamics of IT-Enabled Change: A Multipedia Simulation Approach," Journal of Mangement Information Systems: JMIS, Vol. 14, No. 3, pp. 109-140, Winter 1997/1998
- 82. "User-Sensitive Multimedia Presentation System," IBM Technical Discslosue Bulletin, Vol. 39, No. 3, pp. 93-94 March 1996
- 83. R. Kemp and S. Smith, "Using Planning Techniques to Provide Feedback in Interactive Learning Environments," Proc. Sixth Int'l Conf. On Tools with Artificial Intelligence," pp. 700-703, November 1994
- 84. R. Kemp, "Using the Wizard of Oz Technique to Prototype a Scenario-Based Simulation Tutor," Proc. of 1997 World Conf. On Artificial Intelligence in Education, pp. 458-465, December 1997
- 85. R. Schank, "Virtual Learning: A Revolutionary Approach to Building a Highly Skilled Workforce," Personnel Psychology Vol. 51, No. 3, pp. 767-771, Autumn 1998

- 86. J. Breuker, "What are Intelligent Coaching Systems and Why are they (in)evitable?" IEEE Colloquium on Artificial Intelligence in Educational Software, pp. 2/1-2/5, June 1998
- 87. "Why Should the Teens Have All the Best Games? Management Skill with Oil, Health, Housing Games," Computergram Int'l, June 17, 1996
- 88. E.Tam, P. Allard, M. Faraj, M. Kaddoura, A. Mourad, H. Liu, A. Malowany, R. Marceau, L. Granger and J. Gagnon, "WITS: A Reusable Architecture for a VR-Based ITS" at http://advlearn.Irdc.pitt.edu/its-arch/papers/tam.html, pp. 1-5, July 2001
- 89. Computer Dictionary, 3rd Edition, pp. 264, 276, 383, 446, 462, 507, 1997
- 90. L. Grensing-Prphal, "Flexible Learning", Credit Union Management Vol. 21, No. 2, pp. 32-33 and 38, Feb. 1998,
- 91. J. Wilson and D. Mosher, "*The Prototype of the Virtual Classroom*," Journal of Instruction Delivery Systems, Summer 1994, at <a href="http://www.educause.edu/nlii/articles/moshwils.html">http://www.educause.edu/nlii/articles/moshwils.html</a>, pp. 1-9, July 2001
- 92. T. Burns, "Multimedia Training... 'Get Lemonade, Not a Lemon!'" Journal for Quality and Participation, Vol. 20, No. 3, pp. 22-26, June 1997,
- 93. A. Seagren and B. Watwood, "The Virtual Classroom: Great Expectations. Delivering Graduate Education by Computer: A Success Story," 5<sup>th</sup> Annual International Conf. for Community & Technical College Chairs, Deans and Other Organizational Leaders, pp 512-517, February 1996

Dated: August 31, 2004

Respectfully submitted,

Kenneth F. Smolik

Registration No. 44,344

BANNER & WITCOFF, LTD.

10 South Wacker Drive

Suite 3000

Chicago, Illinois 60606 Telephone: 312-463-5000

Facsimile: 312-463-5001

PTO/SB/08a (05-03)

Approved for use through 04/30/2003. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

## **SUPPLEMENTAL INFORMATION DISCLOSURE** STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet of

	Complete if Known	
Application Number	09/868,708	
Filing Date	October 22, 2001	
First Named Inventor	Lannert	
Art Unit	2121	
Examiner Name	Hirl	
Attorney Docket Number	05222.00167	

	FOREIGN PATENT DOCUMENTS							
Examiner Initials*	] <u>.</u>	Foreign Patent Document		Name of Patentee or	Pages, Columns, Lines,			
	Cite No.1	Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> ( <i>if known</i> )	Publication Date MM-DD-YYYY	Applicant of Cited Document	Where Relevant Passages or Relevant Figures Appear	r⁵		
	1	EP 0 689 132 A2	12/27/95	Laffra				
	2	EP 0 710 942 A2	05/08/96	Siefert				
	3	EP 0 798 655 A2	10/01/97	Jervis, et al.				
	4	WO 00/04478	01/27/00	Jonsson				
	5	WO 98/03953	01/29/98	Simmons				
	6	WO 98/25251	06/11/98	Но				
	7	WO 98/32109	07/23/98	De Lange				

	1	OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issunumber(s), publisher, city and/or country where published.				
	8	W. Doube, "A Browser-Based System to Support & Deliver DE," 1998 FIE Conference, Conference Proceedings, Vol. 1, pp. 479-484, Nov. 4-7, 1998			
	9	W. Regian and G.Pitts, "A Fuzzy Logic-Based Intelligent Tutoring System (ITS)," Information Processing 92, Vol. II, pp. 66-72, Dec. 1992.			
	10	J. Reye, "A Goal-Centered Architecture for Intelligent Tutoring Systems," Proc. of 7th World Conf. on Artificial Intelligence in Education, pp. 307-314, Aug. 1995			
	11	R. Schank and D. Edelson, "A Role for Al in Education: Using Technology to Reshape Education", Northwestern University, The Institute for the Learning Sciences, Journal of Artificial Intelligence in Education, Winter 1990, pp. 1-24, January 1990			
	12	A. Nowakowski, "A Special Section Goal Based Scenarios: A New Approach to Professional Education: Reengineering Education at Andersen Consulting," Educational Technology, pp. 3-8, NovDec. 1994			
	13	R. Chellappa, A. Barua and A. Whinston, "An Electronic Infrastructure for a Virtual University," Communications of the ACM, Vol. 40, No. 9, pp. 56-58, Sep. 1997.			
	14	K. Itoh M.Itami, K. Ichihara, J. Matsushita, T. Nomizo, T. Shimomura and T. Takahashi, "An Object-Oriented Architecture for Evolutional Development of Interactive Learning Environment with Coached Problem-Solving," Proc. Of 1997 World Conf. On Artificial Intelligence in Education, pp. 592-94, Dec. 1997			
	15	K. Nakabayashi, M. Maruama, Y. Koike, Y. Kato, H. Touhei and Y. Fukuhara, "Architecture of an Intelligent Tutoring System on the WWW," Artificial Intelligence in Education, pp. 39-46, Dec. 1997			
· · · · · ·	16	D. McArthur, "Artificial Intelligence and Mathematics Education" at http://www.rand.org/hot/mcarthur/Papers/aied.html, pp. 1-8, Jan. 2001			
	17	T. Murray, "Authoring Intelligent Tutoring Systems: An Analysis of the State of the Art" at http://www.cs.umass/edu/~tmurray/papers/ATSummary/AuthTools.html, pp. 1-35, July 2001			
	18	"Automate Your Business Plan Software" at www.business-plan.com/automate.html, pp. 1-4, July 2001			
	19	A. Gonalez and L. Ingraham, "Automated Exercise Progression in Simulation-Based Training," IEEE Trans. On Systems, Man, and Cybernetics, Vol. 24, No. 6, pp. 863-74, June 1994			
	20	A. Muntjewerff, "Automated Training of Legal Reasoning" at http://www.bileta.ac.uk/94papers/muntjew.html, pp. 1-7, July 2001, 9th BILETA Conference April , 1994			
	21	"Brainmaker" at htt://people.becon.org/~echoscan/28-04.htm, July 2001	<u> </u>		

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of T² Cite Examiner the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue No.1 Initials \* number(s), publisher, city and/or country where published. Brainmaker Neural Network Application Examples at http://www.calsci.com/Applications.html, January 2001 22 C. Robinson, E. Arias and H. Eden, "Bridging the Virtual and the Physical: The InterSim as a Collaborative 23 Support Interface," Artificial Intelligence in Education, pp. 556-58, Dec. 1997 C. Shreiner, "CAPTOR a Model for Delivering Web-Based Intelligent Tutoring System Technology", IEEE Proc. 24 DASC vol. 2, pp 5.C.4.1-5 S. Prabhu, "Computer Aided Instruction for Statistics: A Knowledge-Based Systems Approach," Int'l J. of 25 Computers in Adult Education and Training, Vol. 5(1), pp. 3-14., November 1995 J. Montgomery, R. Campbell and C. Moffett, "Conducting and Supporting a Goal-Based Scenario Learning 26 Environment," Educational Technology, pp. 15-20, 994 A. Zeller and D. Lutkehaus, "DDD-A Free Graphical Front-End for UNIX Debuggers," ACM Sigplan Notices, 27 Vol. 31, No. 1, pp. 22-27, Jan. 1996, Vanguard Software Corporation "Decision Pro3.0" at www.vanguardsw.com/, Jan. 2001 28 B. Cheok and A. Nee, "Developing a Design System into an Intelligent Tutoring System," Int'l J. Engr. Eud., Vol. 29 13(5), pp-341-46, Dec. 1997 T. Nogami, Y. Yokoi, I. Yanagisawa and S. Mitui, "Development of a Simulation-Based Intelligent Tutoring System 30 for Assisting PID Control Learning," IEICE Transactions on Information and Systems, E77-D, No. 1, Tokyo Japan, pp. 108-117, Jan. 1994 J. Gonzalez, J. Lopez, F. Bustio, P., Corcuera and E. Mora, "Development of an Integrated Simulator and Real 31 Time Plant Information System," Advances in Operational Safety of Nuclear Power Plants, Proceedings of an International Symposium, pp. 543-549, September 1996. P. Brusilovsky, S. Ritter and E. Schwarz, "Distributed Intelligent Tutoring on the Web," Artificial Intelligence in 32 Education, pp. 482-89, Dec. 1997 R. Schank and M. Korcuska, "Eight Goal-Based Scenario Tools", Technical Report # 67, Northwestern University, 33 The Institute for the Learning Sciences, pp. 1-37, January 1996 J. Siemer and M. Angelides, "Embedding an Intelligent Tutoring System in a Business Gaming-Simulation 34 Environment," Proc. Of the 1994 Winter Simulation Conference, pp. 1399-1406, Dec. 1994 Engines for Education" http://www.ils.nwu.edu/~e\_for\_e/nodes/I-M-INTRO-ZOOMER-pg.html; July 2001. 35 S. Taylor and J. Siemer, "Enhancing Simulation Education with Intelligent Tutoring Systems," Proc. Of the 1996 36 Winter Simulation Conf., pp. 675-80, Dec. 1996 J. Siemer and M. Angelides, "Evaluating Intelligent Tutoring with Gaming Simulations," Proc. Of the 1995 Winter 37 Simulation Conf., pp. 1376-83, Dec. 1995 A. Mitrovic and B. Martin, "Evaluating the effectiveness of feedback in SQL-tutor", IEEE, proc. Int. workshop 38 IWALT, pp 143-144, 2000 D. Foster, "FRA: Teaching Financial Accounting with a Goal-Based Scenario," Intelligent Systems in Accounting, 39 Finance and Management, Vol. 4, pp. 173-189, September 1995 N. Livergood, "From Computer-Assisted Instruction to Intelligent Tutoring Systems," J. Artificial Intelligence in 40 Education, V. 2(3), pp. 39-50, Dec. 1991 R. Shank, "Goal-Based Scenarios and Business Training: A Conversation with Roger C. Schank," Educational 41 Technology, pp. 27-29, Nov.-Dec. 1994 A. Collins, "Goal-Based Scenarios and the Problem of Situated Learning: A Commentary on Andersen 42 Consulting's Design of Goal-Based Scenarios," Educational Technology, pp. 30-32, Nov.-Dec. 1994 R. Shank, "Goal-Based Scenarios", Technical Report # 36, Northwestern University, The Institute for the Learning 43 Sciences, pp. 1-30, December 1992, J. Rickel, "Intelligent Computer-Aided Instruction: A Survey Organized Around System Components," IEEE Inc., 44 New York, Vol. 49, No. 1, pp. 40-57 - pp. 1-32, Jan. 1989 M. Yazdani, "Intelligent Tutoring Systems: An Overview" Experts Systems, Vol. 3, No. 3, pp. 154-162, July 1986 45 "Interactive Multimedia Instructs the Individual," Occupational Health & Safety Vol. 63, No. 10, pp. 144-145, Oct. 46 J. Carroll and J. McKendree, "Interface Design Issue for Advice Giving Expert Systems", Comm. Of the ACM, vol. 47 30, No. 1, pp14-31, January 1987 "KBLPS Overview" at www.cgi.com/CGIWEB/KBLPS/overindex4.html, August 1999 48 "Kiplinger TaxCut Press Releases" at http://www.taxcut.com/taxcut/98press\_releases/pr98\_nowshipping.html, 49

AUG 3 1 7004 E

AUG 3 1 2004 EL

	11.0°		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
	Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.  G. Cole, "Learning with Computers", Accountancy Vol. 113, No. 1209, pp. 60-64, May 1994	T²
r		51	J. Keys, R. Fulmer and S. Stumpf "Microworlds and Simuworlds: Practice Fields for the Learning Organization," Organizational Dynamics Vol. 24, No. 4, pp. 36-49, Spring 1996	
t		52	"MUSE Patents" OCCAM Research Corporation, at www.muser.com/html/patents.html, January 2001	
r		53	"News for ESAP" at www.hops.wharton.upenn.edu/~esap/news.html, August 1999	
	-	54	M. Cohn, "No More Boring CPE," Accounting Technology, pp. 27-35, July 1997	
		55	K. Lai, T. Malon, K. Yu, "Object Lens: A 'Spreadsheet' for Cooperative Work", ACM Transactions on Information Systems, Vol. 6, No. 4, pp. 332-353, Oct. 1988	
		56	J. Brown, R. Burton and J. DeKleer, "Pedagogical, Natural Language and Knowledge Engineering Techniques in SOPHIE I, II, and III," Intelligent Tutoring Systems, D. Sleeman & J.S. Brown eds., pp. 227-82, Dec. 1982	
		57	J. Caird, "Persistent Issues in the Application of Virtual Environment Systems to Training," Proceedings. Third Annual Symposium on Human Interaction with Complex Systems, IEEE, pp. 124-32, August 1996	
		58	D. Bill, "Popular Theory Supporting the Use of Computer Simulation for Experiential Learning," http://www.centurionsys.com/rtcl57.html, pp. 1-5, July 2001	
		59	C. Cleary and R. Bareiss, "Practical Methods for Automatically Generating Typed Links", The Institute for Learning Sciences, Northwestern University, ACM Hypertext, pp 31-41, 1996	
L		60	"Projects: FinPlan System", Russian Research Institute of Artificial Intelligence, at http://www.rriai.org.ru/FinPlan, July 2001	
		61	R. Azevedo, S. Lajoie, M. Desaulniers, D. Fleiszer and P. Bret, "RadTutor: The Theoretical and Empirical Basis for the Design of a Mammography Interpretation Tutor," Proc. of 1997 World Conf. On Artificial Intelligence in Education, pp. 386-393 Dec. 1997	
L		62	T. Cooper and N. Wogrin, "Rule-Based Programming with OPS5" Morgan Kaufmann Publishers, at www.mkp.com/books_catalog/O-934613-51-6.asp, August 1999	
		63	R. Min, "Simulation Technology and Parallelism in Learning Environments" at http://www.to.utwente.nl/prj/min/Book/chapter1.htm, pp. 1-26, July 2001	•
		64	J. Shi, T. Smith, J. Granieri and N. Badler, "Smart Avatars in JackMOO," Proceedings of the 1999 IEEE Conference on Virtual Reality, pp. 156-163, 1999	
L		65	V. Shute, "SMART Evaluation: Cognitive Diagnosis, Mastery Learning & Remediation," Proc. of 7th World Conf. On Artificial Intelligence in Education, pp. 123-130, Aug. 1995	
		66	C. Hafner and V. Wise, "Smartlaw: Adapting Classic Expert System Techniques for the Legal Research Domain", ACM pp 133-141, 1993	
		67	"Socialized Collaborative Learning in Multimedia Virtual Worlds" National University of Singapore, School Computing, at http://www.comp.nus.edu.sg/labs/learning/lels/vrml.html, pp. 1-4, July 2001	
		68	C. Whittington and L. Campbell, "Task-Oriented Learning on the Web"; Innovations in Education and Training International, Vol. 36, No. 1, pp. 26-33, Feb. 1999	
L		69	D. Foster, "Teaching Real-World Analysis Skills for Goal-Based Scenario," The Institute for the Learning Sciences, Northwestern University, pp. 68-74, July 2001	
		70	M. Papagni, V. Cirillo and A. Micarelli, "Teaching Through Case-Based Reasoning: An ITS Engine Applied to Business Communication," Proc. of 1997 World Conf. On Artificial Intelligence in Education, pp. 111-118, Dec. 1997	
Ĺ		71	T. Herron, "Teaching with the internet" 1998, The Internet and Higher Education, pp 217-222, 1998	
		72	D. Suthers, "Technical Report: Computer Aided Education and Training Initiative" at http://advlearn.lrdc.pitt.edu/advlearn/papers/FINALREP.html, pp. 1-51, January 1998	
		73	Workflow Template - Developing a WFT Workflow System, "Simulating the Running of the WFT Workflow System", Template Software Business Simulator, Chapter 8, pp. 1-23, 1998	
		74	R. Schank, A. Fano, M. Jona and B. Bell, "The Design of Goal-Based Scenarios", Technical Report # 39, Northwestern University, The Institute for the Learning Sciences, pp. 1-58, March 1993	
L		75	J. Anderson and B. Reiser, "The Lisp Tutor," Byte, pp. 159-75, April 1985	
L		76	D. McArthur, M. Lewis and M. Bishay, "The Roles of Artificial Intelligence in Education: Current Progress and Future Prospects" at http://www.rand.org/education/mcarthur/Papers/role.html, pp. 1-42, July 2001	
		77	W. van Joolingen, S. King and T. de Jong, "The SimQuest Authoring System for Simulation-Based Discovery Learning," Proc. of 1997 World Conf. On Artificial Intelligence in Education, pp. 79-86, Dec. 1997	

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of T<sup>2</sup> Cite the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue Examiner <u>N</u>o.<sup>1</sup> Initials 1 number(s), publisher, city and/or country where published. A. Kumar, R. Pakala, R. Ragade and J. Wong, "The Virtual Learning Environment System," 28th Annual Frontiers in Education Conference, Conference Proceedings, Vol. 2, Nov. 4-7, 1998 M. McGee, "Train with Less Pain,"at www.Informationweek.com, pp. 150 and 154 October 1997 79 "TurboTax Deluxe Product Information" at http://www.intuit.com/turbotax/prodinfo/ttdlx.html, January 2001 80 J. Manzoni and A. Angehm, "Understanding Organizational Dynamics of IT-Enabled Change: A Multipedia Simulation Approach," Journal of Mangement Information Systems: JMIS, Vol. 14, No. 3, pp. 109-140, Winter 81 "User-Sensitive Multimedia Presentation System," IBM Technical Discslosue Bulletin, Vol. 39, No. 3, pp. 93-94 82 R. Kemp and S. Smith, "Using Planning Techniques to Provide Feedback in Interactive Learning Environments," 83 Proc. Sixth Int'l Conf. On Tools with Artificial Intelligence," pp. 700-703, November 1994 R. Kemp, "Using the Wizard of Oz Technique to Prototype a Scenario-Based Simulation Tutor," Proc. of 1997 84 World Conf. On Artificial Intelligence in Education, pp. 458-465, December 1997 R. Schank, "Virtual Learning: A Revolutionary Approach to Building a Highly Skilled Workforce," Personnel Psychology Vol. 51, No. 3, pp. 767-771, Autumn 1998 85 J. Breuker, "What are Intelligent Coaching Systems and Why are they (in)evitable?" IEEE Colloquium on Artificial 86 Intelligence in Educational Software, pp. 2/1-2/5, June 1998 "Why Should the Teens Have All the Best Games? Management Skill with Oil, Health, Housing Games," 87 Computergram Int'l, June 17, 1996 E.Tam, P. Allard, M. Faraj, M. Kaddoura, A. Mourad, H. Liu, A. Malowany, R. Marceau, L. Granger and J. Gagnon, "WITS: A Reusable Architecture for a VR-Based ITS" at http://advlearn.lrdc.pitt.edu/its-88 arch/papers/tam.html, pp. 1-5, July 2001 Computer Dictionary, 3rd Edition, pp. 264, 276, 383, 446, 462, 507, 1997 89 L. Grensing-Prphal, "Flexible Learning", Credit Union Management Vol. 21, No. 2, pp. 32-33 and 38, Feb. 1998, 90 J. Wilson and D. Mosher, "The Prototype of the Virtual Classroom," Journal of Instruction Delivery Systems, 91 Summer 1994, at http://www.educause.edu/nlii/articles/moshwils.html, pp. 1-9, July 2001 T. Burns, "Multimedia Training... 'Get Lemonade, Not a Lemon!" Journal for Quality and Participation, Vol. 20, 92 No. 3, pp. 22-26, June 1997, A. Seagren and B. Watwood, "The Virtual Classroom: Great Expectations. Delivering Graduate Education by Computer: A Success Story," 5<sup>th</sup> Annual International Conf. for Community & Technical College Chairs, Deans and Other Organizational Leaders, pp 512-517, February 1996

Examiner Signature	Date Considered	
Signature	Considered	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

<sup>&</sup>lt;sup>1</sup> Applicant's unique citation designation number (optional) . <sup>2</sup> See Kinds Codes of USPTO Patent Documents at <a href="www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

Complete If Known

PTO/SB/17 (10-03)

Approved for use through 07/31/2006, OMB 0551-0032

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

FEE	TR	AN	SMI	ΓTAL
1	for	FY	2004	4

09/868,708 Application Number October 22, 2001 Filing Date First Named Inventor Lannert Effective 10/01/2003. Patent fees are subject to annual revision. Hirl **Examiner Name** Applicant claims small entity status. See 37 CFR 1.27 2121 Art Unit 05222.00167 Attorney Docket No.

	1			FEE CA	LCULATION (continued)	
METHOD OF PAYMENT (check all that apply)	3. AE	DITION	VAL FE			
☐ Check ☐ Credit card ☐ Money ☐ Other ☐ None Order	1	Entity	Small E			
☑ Deposit Account:	Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	e Paid
Deposit	1051	130	2051	65	Surcharge - late filing fee or oath	
Account 19-0733 Number	1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet.	
Deposit	1053	130	1053	130	Non-English specification	
Account Banner & Witcoff, LTD.	1812	2,520	1812	2,520	For filing a request for reexamination	
Name The Director is authorized to: (check all that apply)	1804	920*	1804	920°	Requesting publication of SIR prior to Examiner action	
☐ Charge fee(s) indicated below ☐ Credit any overpayments ☐ Charge any additional fee(s) during the pendency of this application	1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
☐ Charge fee(s) indicated below, except for the filing lee	1251	110	2251	55	Extension for reply within first month	
o the above-identified deposit account.  FEE CALCULATION	1252	420	2252	210	Extension for reply within second month	
	1253	950	2253	475	Extension for reply within third month	
1. BASIC FILING FEE Large Entity Small Entity	1254	1,480	2254	740	Extension for reply within fourth month	
Fee Fee Fee <u>Fee Description</u>	1255	2,010	2255	1,005	Extension for reply within fifth month	
Code (\$) Code (\$)	1401	330	2401	165	Notice of Appeal	
1001 770 2001 385 Utility filing fee	1402	330	2402	165	Filing a brief in support of an appeal	
1002 340 2002 170 Design filing fee	1403	290	2403	145	Request for oral hearing	
1003 530 2003 265 Plant filing fee 1004 770 2004 385 Reissue filing fee	1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1005 160 2005 80 Provisional filling fee	1452	110	2452	55	Petition to revive – unavoidable	
SUBTOTAL (1) (\$) 0	1453	1,330	2453	665	Petition to revive – unintentional	
SUBTOTAL (1)	1501	1,330	2501	665	Utility issue fee (or reissue)	
2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE	1502	480	2502	240	Design issue fee	
Extra Fee from Fee	1503	640	2503	320	Plant issue fee	
Claims below Paid	1460	130	1460	130	Petitions to the Commissioner	
Total Claims ** = 0 X = 0	1807	50	1807	50	Processing fee under 37 CFR 1.17 (q)	
ndependent - ** = 0 X = 0	1806	180	1806	180	Submission of Information Disclosure Stmt	180
Multiple X = 0	8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
Large Entity   Small Entity Fee Fee Fee Fee Description	1809	770	2809	385	Filing a submission after final rejection (37 CFR § 1.129(a))	
Code (\$) Code (\$)  1202 18 2202 9 Claims in excess of 20	1810	770	2810	385	For each additional invention to be examined (37 CFR § 1.129(b))	
1201 86 2201 43 Independent claims in excess of 3	.	. 770	280	1 385	Request for Continued Examination (RCE)	
1203 290 2203 145 Multiple dependent claim, if not paid						
1204 86 2204 43 ** Reissue independent claims over original patent	1002	2 900	180	2 900	Request for expedited examination of a design application	
1205 18 2205 9 ** Reissue claims in excess of 20 a over original patent		er fee (sp	ecify)			
SUBTOTAL (2) (\$) 0	]   *R	educed by	y Basic F	iling Fee	Paid SUBTOTAL (3) (\$) 18	0
**or number previously paid, if greater; For Reissues, see above						
					Complete (if applicable)	

SUBMITTED BY Registration No. 312-463-5000 Telephone 44,344 Kenneth F. Smolik (Attorney/Agent) Name (Print/Type) August 31, 2004 Signature

WARNING: Information on this form may become public. Credit card information should not be

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTO/SB/21 (08-00) Approved for use through 10/31/2002. OMB 0651-0031 leasetype a plus sign (+) inside this box -> [+] U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. 09/868,708 **Application Number TRANSMITTAL** October 22, 2001 Filing Date **FORM** Lannert **First Named Inventor** 2121 (to be used for all correspondence after initial filing) Group Art Unit Hirl **Examiner Name** Attorney Docket Number 05222.00167 Total Number of Pages in This Submission ENCLOSURES (check all that apply) After Allowance Communication to **Assignment Papers** Group Fee Transmittal Form (for an Application) Appeal Communication to Board of Appeals and Interferences Drawing(s) Fee Attached Appeal Communication to Group Licensing-related Papers (Appeal Notice, Brief, Reply Brief) Amendment / Response Proprietary Information Petition After Final Petition to Convert to a Status Letter **Provisional Application** Affidavits/declaration(s) Power of Attorney, Revocation Other Enclosure(s) Change of Correspondence Address (please identify below): Extension of Time Request Supplemental Form PTO/SB08a Terminal Disclaimer 93 References Express Abandonment Request Request for Refund Certificate of Express Mail **Return Receipt Requested** Supplemental Information CD, Number of CD(s) Disclosure Statement Certified Copy of Priority Remarks The Commissioner is authorized to charge any fees in connection with this Document(s) correspondence to Deposit Account No. 19-0733. A duplicate of this sheet is enclosed. Response to Missing Parts/ Incomplete Application Express Mail No. EV 306401169 US Response to Missing

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be send to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Parts under 37 CFR 1.52 or 1.53

> Kenneth F. Smolik Banner & Witcoff, Ltd.

August 31, 2004

Firm

Individual name

Signature

Date



# CERTIFICATE OF EXPRESS MAIL (PATENT)

Attorney Docket No. 05222.00167

Express Mail No. EV 306401169 US Deposited August 31, 2004

I hereby certify that the attached correspondence, identified below, is being deposited with the United States Postal Service as "Express Mail Post Office to Addressee" under 37 CFR §1.10 on the date indicated above and is addressed to Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

By:\_

Lannert, et. al., U.S. Patent Application No. 09/868,708 for "A GOAL BASED SYSTEM UTILIZING A TIME BASED MODEL"

- Transmittal Form (in duplicate)
- Fee Transmittal (in duplicate)
- Supplement Information Disclosure Statement (8 pages)
- Supplemental PTO/SB/08a (4 pages)
- 93 References
- Return Receipt Postcard